Bosch Prosound Ceiling Speakers

Security Systems

en | Installation and User Instructions

LC2-PC30G6-4
LC2-PC30G6-8
LC2-PC30G6-8L
LC2-PC60G6-8H
LC2-PC60G6-10

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Welcome

Thank you for purchasing Bosch loudspeakers. Read through this manual to familiarize yourself with features, applications, and precautions before you use these products.

Bosch loudspeakers use innovative design and materials to provide premium-level performance in a flush-mount ceiling format. Four models comprise by Bosch: the LC2-PC30G6-4 with a 4-inch LF driver and a .75-inch, titanium-coated tweeter with waveguide; the LC2-PC30G6-8 with an 8-inch LF driver and a 1-inch titanium-coated tweeter with waveguide; the LC2-PC60G6-8H with a fully waveguide-loaded 8-inch LF driver and a 1-inch titanium coated tweeter; and the LC2-PC60G6-10, a true ceiling-mounted subwoofer designed to augment and extend the full-range model's low-frequency response.

Safety First

Suspending any object is potentially dangerous and should only be attempted by individuals who have a thorough knowledge of the techniques and regulations of rigging objects overhead. Bosch strongly recommends that all speakers be suspended taking into account all current national, federal, state and local regulations. It is the responsibility of the installer to ensure that all speakers are safely installed in accordance with all such regulations. When speakers are suspended, Bosch strongly recommends that the system be inspected at least once a year. If any sign of weakness or damage is detected, remedial action should be taken immediately. The user is responsible for making sure that the supporting surfaces, and any additional hardware used, is capable of supporting the loudspeaker. Any hardware used to suspend a loudspeaker array that is not provided by/associated with Bosch is the responsibility of others.

Important Features

- Model for model, has superior performance to competing brands
- Comes with both 70V/100V or 8-ohm operation standard on every model
- Includes all installation accessories commonly needed for most jobs
- Designed for use in voice alarm systems.

LC2-PC30G6-4

Perfect for conventional rooms. It has excellent bandwidth in an esthetically very unobtrusive installation profile. Its compact design fits in tight areas. Its 4-inch woofer and waveguide-coupled, titanium-coated dome tweeter give smooth, wide frequency response. The enclosure is ported and tuned to provide surprising bass response in such a compact package. Features an easy 3-point mounting system for quick installations.

LC2-PC30G6-8

The LC2-PC30G6-8 has a specially tuned enclosure and 8-inch woofer to provide amazing bass response. The 1-inch waveguide-coupled tweeter give smooth controlled coverage out to 20 kHz. Perfect for installations where a flush-mount design is desired but demand for high-quality audio exists. Features a 4-point mounting system to make installations fast and easy.

LC2-PC30G6-8L

The LC2-PC30G6-8L is the same as the LC2-PC30G6-8 but in a low-profile installation package. Ideal for tight ceiling spaces.

LC2-PC60G6-8H

The LC2-PC60G6-8H is ideal for high ceilings and reverberant "problem" rooms. Its exclusive ported, waveguide-coupled, 8-inch driver provides excellent intelligibility and definition. The LC2-PC60G6-8H patent-pending design provides great coverage control throughout the voice range and above. No other ceiling speaker system provides the combination of excellent pattern control, wide bandwidth, high power handling, and compact design like the LC2-PC60G6-8H.

LC2-PC60G6-10

The LC2-PC60G6-10 packs a 10-inch subwoofer in a tuned high performance enclosure to give amazing low frequency performance down to 45Hz! It is one of the few quick-mount ceiling TRUE subwoofers available. Flexible installation and powerful low-end performance make it the ideal mate to any ceiling model.

Packing List (Figure 1)

Figure	Quantity	Part
A	2	Speaker system
B	4	Tile rails
C	2	C-ring support
D	2	Grille
E	1	Owner's manual
F	4	Support ring screws
G	1	Cutout template
H	2	Paint Shield

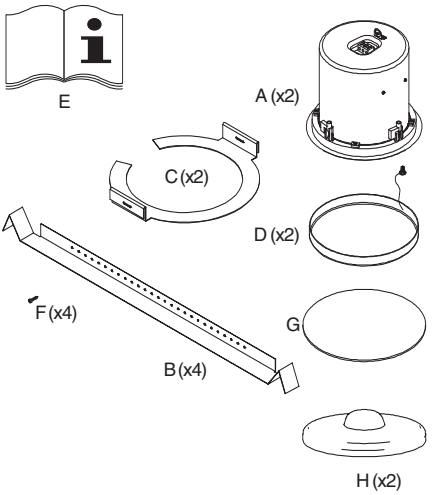


Figure 1: packing list

Bosch Ceiling Series Systems (sold in pairs)

Model	Description
LC2-PC30G6-4	4" coaxial speaker with horn-loaded, Ti-coated tweeter
LC2-PC30G6-8	8" coaxial speaker with horn-loaded, Ti-coated tweeter
LC2-PC30G6-8L	Same as LC2-PC30G6-8 above except with low-profile backcan
LC2-PC60G6-8H	8" waveguide-coupled coaxial speaker with horn-loaded, Ti-coated tweeter
LC2-PC60G6-10	10" High performance subwoofer

Product Feature Identification

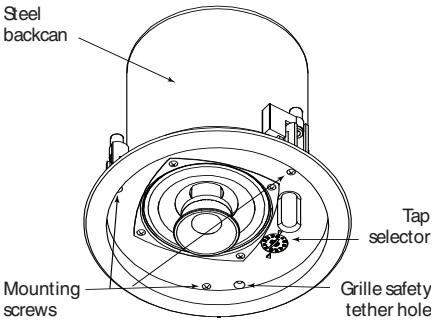


Figure 2: Bottom of speaker

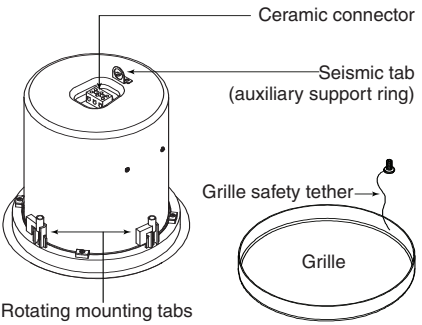


Figure 3: Top of speaker

The Bosch mounting system has been designed so that, if necessary, the installation can be done from beneath the ceiling. In some cases with a suspended ceiling grid, however, it may be easier to access from both the top and bottom of the ceiling tile during the installation process. Typical installation hardware needed for either suspended ceilings or sheetrock ceilings is included. The ceiling speaker assembly is held in place by mounting tabs that securely grip the ceiling material. Input wiring is attached to a removable terminal block connector that can be pre-wired if necessary before speaker installation to speed up the installation process.

Step 1: Cut the Hole (Figure 4)

For suspended tile or sheetrock ceilings, cut out the hole either by tracing the cardboard template or with a circular cutter set to the appropriate cutout size. If the wire has been pre-installed, pull the wiring through the cutout hole.

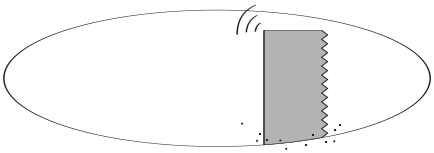


Figure 4: Cut ceiling hole

Step 2: Install C-Ring and/or Tile Rails (Figure 5)

All Bosch speakers come packaged with two types of backing hardware: a C-ring and two tile rails.

For suspended ceiling installations, insert the C-ring through the hole cut in the ceiling tile. Place the C-ring around the hole with the tabs located as shown in Figure 5. Insert the tile rails through the cut hole in the ceiling tile. Snap the two rails into the two tabs in the C-ring and align the rails so that the ends extend OVER the T-channel grid on the side of the tile. Secure the rails onto the C-ring tabs by inserting a screw though each tab into the rail, as shown in Figure 5.

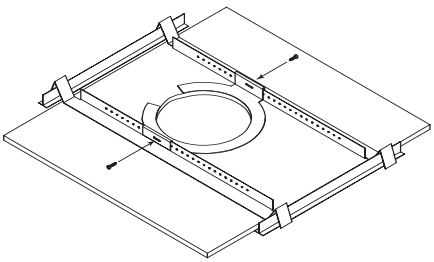


Figure 5: Secure rails to C-Ring

INSTALLATION NOTE: TILE RAILS AND C-RING

Each speaker comes with two tile rails which are designed to fit either standard 24-inch-wide or 600-mm-wide tiles. It is important to note that the tile rail pieces do not actually attach to the T-grid struts. The ends of the rails sit OVER the T-grid strut. Normally, the tile supports the rails. The tile rails are pre-punched at regular intervals with holes along their length. This allows the C-ring to be positioned at any point along the rail. If the tile comes out or falls apart, the ends of the support rails fall onto the T-grid, which prevents the speaker assembly from falling.

Always use all included support hardware when installing into suspended ceiling tiles to make sure the installation is secure.

For sheetrock ceiling installations, the C-ring should be used by itself to reinforce the ceiling material and to spread out the pressure from the speaker hold-down tabs. Guide the C-ring through the cut hole in the ceiling, and place it on the back side of the hole before inserting the speaker.

Step 3: Attach Wiring to the Ceramic Connector (Figure 6)

Insert the bare end of wire into the appropriate connector terminals as described below and screw down the hold-down screw until tight, using a small screwdriver.

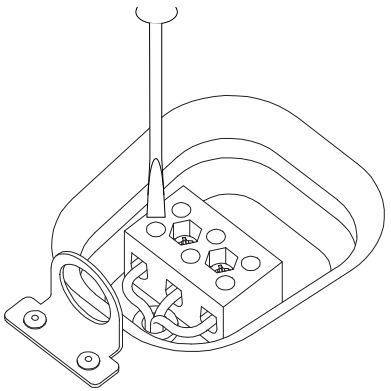
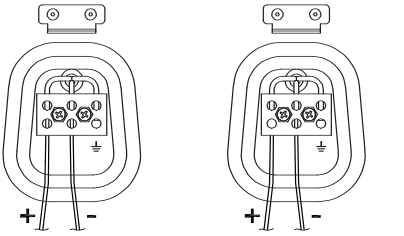


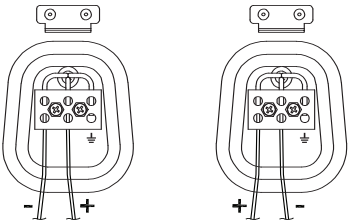
Figure 6: Tighten with screwdriver

When adding a subwoofer, be sure to observe the correct polarity. The LC2-PC60G6-10 subwoofer has been designed for optimum performance when used with the LC2-PC30G6-4. In order to maximize the low frequency output when used with the LC2-PC30G6-8, LC2-PC30G6-8L or LC2-PC60G6-8H, the polarity of the LC2-PC60G6-10 subwoofer should be reversed. See Figures 7 and 8.



LC2-PC60G6-10 Subwoofer LC2-PC30G6-4 Loudspeaker

Figure 7: Subwoofer polarity with LC2-PC30G6-4



LC2-PC60G6-10 Subwoofer

LC2-PC30G6-8/ LC2-PC60G6-8H/LC2-PC30G6-8L- Loudspeaker

Figure 8: Subwoofer polarity with LC2-PC30G6-8/LC2-PC60G6-8H/ LC2-PC30G6-8L

INSTALLATION NOTE: CEILING TILE CAUTION

When mounting the units into 2'˜2' or 2'˜4' suspended ceiling tiles, DO NOT install them in lightweight fibreglass-type tiles without full secondary support for the speaker as noted in Step 6. Such tiles are not designed to support any substantial weight. Speaker installation without secondary support will cause the tile to sag and distort, even with the tile bridge installed. The secondary support line at the rear of the speaker MUST be strung taut in these situations and MUST remove most of the force of the speaker on the tile to ensure that the speaker does not deform the tile.

Step 4: Mount the Speaker Into the Ceiling (Figure 9)

Push the speaker into the ceiling hole until the front baffle rim is flush with the ceiling. Tighten the mounting tabs by turning the screw clockwise until the speaker is secure. Please note that the first clockwise quarter-turn rotates the attachment tabs outward. The remaining turns tighten the tabs down onto the back of the ceiling surface (see Figure 10).

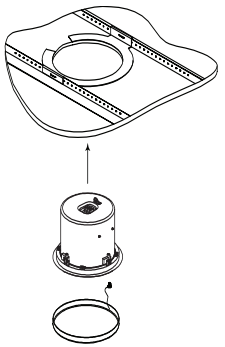


Figure 9: Mount speaker into ceiling

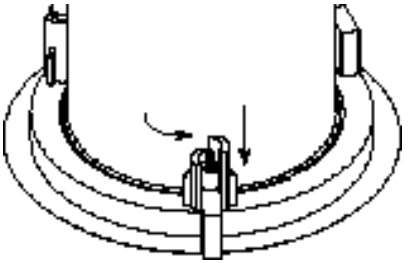


Figure 10: Tighten mounting tabs

INSTALLATION NOTE: MOUNTING TABS

For each attachment screw, first turn one half-turn counterclockwise to release the mounting tab from its guide.

Step 5: Connect an Auxiliary Support Line (Figure 11)

Note the support ring on the back of the speaker. The ring allows for connection to a independent and secure anchor point. Construction codes often require the use of this secondary support point.

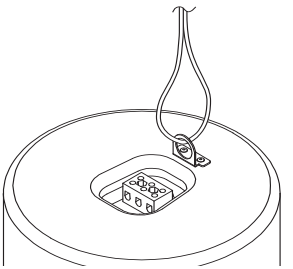


Figure 11: Attach auxiliary support line

Step 6: Adjust Tap Selector (Figure 12)

The tap selector switch is located on the front baffle. Adjust the speaker to the appropriate tap setting before installing the grille. In some 70V/100V constant voltage installations it is advisable to leave the grilles off if final speaker audio level balance adjustments are to be made later. After the levels are adjusted the grilles can then be installed.

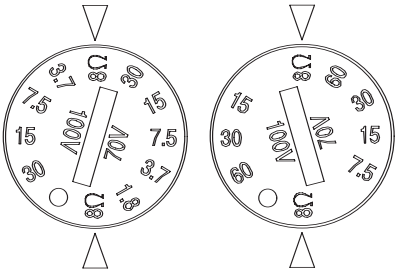


Figure 12: Adjust tap selector (left: LC2-PC30G6-4/LC2-PC30G6-8/ LC2-PC30G6-8L; right: LC2-PC60G6-10/ LC2-PC60G6-8H)

LC2-PC30G6-4, LC2-PC30G6-8 and **LC2-PC30G6-8L**

In addition to the 8-ohm setting, the power taps are 30 W, 15 W, 7.5 W, and 3.7 W at both 70.7V and 100V, with a 1.8 W tap for 70.7V only.

LC2-PC60G6-8H and **LC2-PC60G6-10**

In addition to the 8-ohm setting, the power taps are 60 W, 30 W, and 15 W at both 70.7V and 100V, with a 7.5 W tap for 70.7V only.

Step 7: Attach the Grille (Figure 13)

INSTALLATION NOTE:
GRILLE SAFETY FEATURE

Bosch grilles features a unique safety tether to prevent the grille from falling if the grille is removed or comes loose after installation.

First, install the grille's safety tether by pushing the grille fastener into the hole in the front of the baffle (see Figure 13). Second, press the grille into place until the front of the grille is flush with the rim of the baffle. Make sure the grille is securely seated to prevent it from vibrating loose.

If you need to remove the grille, the easiest way is to insert two bent paper clips or other pointed objects into holes in the grille, then apply slow even pressure to pull down on the grille until that section of the grille comes out slightly. Continue the same procedure around the perimeter of the grille, loosening a portion at a time until the grille is removed.

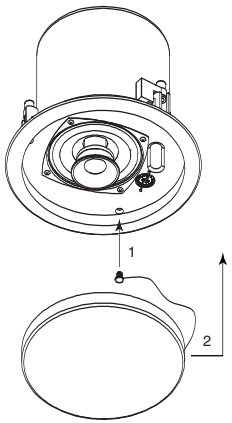


Figure 13: Attach the grille

If the speaker is installed in an area where the interior design requires a color match, these speakers are simple to paint. The speakers can accommodate almost any type of latex or oil-based paint. The bezel/rim can be painted before installation or after mounting into the ceiling.

Painting Process

Clean the rim and grille with mineral spirits or other light solvent. Do not use harsh solvents such as gasoline, kerosene, acetone, or other chemicals. If you use these cleaners you may permanently damage the enclosure. Also, don't use abrasives products such as sandpaper or steel wool.

Either by rolling or spraying, apply two or more thin coats of paint. If you are spraying, hold the spray can at the angles shown in Figure 14.

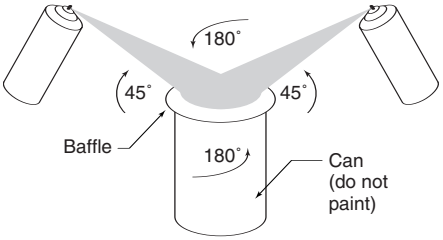


Figure 14: Spray-painting angles

If you are painting the grille also, you must first remove the internal grille cloth. Spray painting is strongly recommended. If the grille is rolled or brush painted, the grille may become clogged with paint and the sound quality will suffer. After the paint has dried, replace the internal grille cloth.

If you wish to paint the speaker along with the ceiling after installation, insert a plastic or cardboard paint shield into the front of the speaker to mask the drivers and internal baffle, paint the speaker, then remove the shield.

Specification	LC2-PC30G6-4	LC2-PC30G6-8	LC2-PC30G6-8L	LC2-PC60G6-8H	LC2-PC60G6-10
Dimensions (depth x diam.)	6.9" x 7.1" (176 x 181 mm)	10.0" x 10.6" (255 x 270 mm)	7.0" x 10.6" (190 x 255 mm)	11.9" x 12.6" (303 x 320 mm)	11.9" x 12.6" (303 x 320 mm)
Bezel diameter	8.3" (210 mm)	11.8" (300 mm)	11.8" (300 mm)	13.8" (350 mm)	13.8" (350 mm)
Weight	6 lbs (2.7 kg)	11 lbs (5.0 kg)	11 lbs (5.0 kg)	13.2 lbs (6.0 kg)	15.5 lbs (7.0 kg)
Cabinet construction	Steel enclosure and UL94V-0 rated baffle and bezel	Steel enclosure and UL94V-0 rated baffle and bezel	Steel enclosure and UL94V-0 rated baffle and bezel	Steel enclosure and UL94V-0 rated baffle and bezel	Steel enclosure and UL94V-0 rated baffle and bezel
LF transducer	4" (100 mm) high-compliance driver (weatherized cone)	8" (205 mm) high-compliance driver (weatherized cone)	8" (205 mm) high-compliance driver (weatherized cone)	8" (205 mm) high-compliance driver (weatherized cone)	10" (260 mm) high-compliance driver (weatherized cone)
HF transducer	.75" (19 mm) Ti-coated dome	1" (25 mm) Ti-coated dome	1" (25 mm) Ti-coated dome	1" (25 mm) Ti-coated dome	N/A
Mounting system	Integrated 3-point toggle anchors	Integrated 4-point toggle anchors	Integrated 4-point toggle anchors	Integrated 4-point toggle anchors	Integrated 4-point toggle anchors
Available colors	White (paintable surface)	White (paintable surface)	White (paintable surface)	White (paintable surface)	White (paintable surface)
Grille construction	Powder-coated steel	Powder-coated steel	Powder-coated steel	Powder-coated steel	Powder-coated steel
Acoustic design	Ported cabinet, two-way design, internally damped, w/passive crossover	Ported cabinet, two-way design, internally damped, w/passive crossover	Ported cabinet, two-way design, internally damped, w/passive crossover	Ported cabinet, waveguide-coupled, two-way design, internally damped w/passive crossover	Ported cabinet, internally damped w/passive crossover

Specification	LC2-PC30G6-4	LC2-PC30G6-8	LC2-PC30G6-8L	LC2-PC60G6-8H	LC2-PC60G6-10
Frequency response	65 Hz–20 kHz	50 Hz–20 kHz	50 Hz–20 kHz	50 Hz–20 kHz	45 Hz–150 Hz
Power handling (@ 8Ω)	50 W (with overload protection)	75 W (with overload protection)	75 W (with overload protection)	75 W (with overload protection)	100 W (with overload protection)
Coverage pattern	130° conical	110° conical	110° conical	75° conical	N/A
Sensitivity (SPL 1 W/1 m)	86 dB	91 dB	91 dB	93 dB	94 dB
Input configuration	8Ω; 70V/100V	8Ω; 70V/100V	8Ω; 70V/100V	8Ω; 70V/100V	8Ω; 70V/100V
70V/100V power taps	1.8 (70V only)/ 3.7/7.5/15/30W	1.8 (70V only)/ 3.7/7.5/15/30W	1.8 (70V only)/ 3.7/7.5/15/30W	7.5 (70V only)/ 15/30/60 W	7.5 (70V only)/ 15/30/60 W
Included accessories	Tile bridge, mounting ring	Tile bridge, mounting ring	Tile bridge, mounting ring	Tile bridge, mounting ring	Tile bridge, mounting ring

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